

Bright Ideas: Investigating Circuits with Max

Learning objective: To explain how electrical circuits function and the role of different components.

Use this writing frame to help Max the monkey explain his latest circuit investigation. Use the word bank to make your sentences flow logically.

Max the monkey sat at his workbench, carefully connecting wires to a battery to test if his bulb would glow.

Word bank: consequently · furthermore · in addition · therefore · closed circuit · conductive · insulator · power source · break in the circuit

1. The Power Source: Start by describing the components Max used. You could begin with: To build a complete circuit, Max required a power source such as... (2 marks)

2. The Flow of Electricity: Explain how the current travels. You could start with: Once the circuit is closed, the electrical current flows from the battery because... (2 marks)

3. Conductors and Insulators: Describe why Max chose specific materials for his wires. Start with: Max ensured the wires were coated in plastic because plastic acts as an insulator, whereas the metal inside is... (2 marks)

4. Troubleshooting: What happens if there is a problem? Start with: If the bulb fails to light up, it might be because there is a break in the circuit, which means... (2 marks)

5. Conclusion: Summarise what you have learnt about electricity. Start with: In conclusion, for a bulb to shine brightly, it is essential that... (2 marks)

Extension challenge: Design a 'scientific warning label' for Max to attach to his battery pack, explaining why it is important to handle electrical components with care.